DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0013739 **OFFICE** Design Policy & Support

Camden County
GDOT District 5 - Jesup **DATE** 8/7/2018
SR 25 Bridge Replacement @ Little
Waverly Creek & Waverly Creek

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Kim Nesbitt, Program Delivery Administrator
Bobby Hilliard, Program Control Administrator
Paul Tanner, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Bill DuVall, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Erik Rohde, State Project Review Engineer
Monica Flournoy, State Materials Engineer
Patrick Allen, State Utilities Engineer
Benny Walden, Statewide Location Bureau Chief
Brad Saxon, District Engineer
Troy Pittman, District Preconstruction Engineer
Dallory Rozier, District Utilities Engineer
Aghdas Ghazi, Project Manager
BOARD MEMBER - 1st Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type: Bridge Replacement
P.I. Number: 0013739
GDOT District: 5
County: Camden
Federal Route Number: US17
State Route Number: SR25
Project Number: N/A

This project proposes replacing the existing bridges on SR 25 over Little Waverly Creek and Waverly Creek near the city of Woodbine.

Submitted for approval:

Barge Design Solutions, Inc. — Date: 5-22-2018

State Program Delivery Administrator — Kimberly W. Yabbett — Date: 5/31/18

GDOT Project Manager — SHP — Date: 5/22/2018

Recommendation for approval:

State Environmental Administrator — ERIC DUFF*/EKP — Date: 6/4/2018

FOR State Traffic Engineer — CHRISTINA BARRY*/EKP — Date: 6/18/2018

State Bridge Engineer — BILL DUVALL*/EKP — Date: 6/25/2018

District Engineer — BRAD SAXON*/EKP — Date: 6/15/2018

☐ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☒ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

State Transportation Planning Administrator — CINDY VAN DYKE*/EKP — Date: 6/7/2018

Approval:

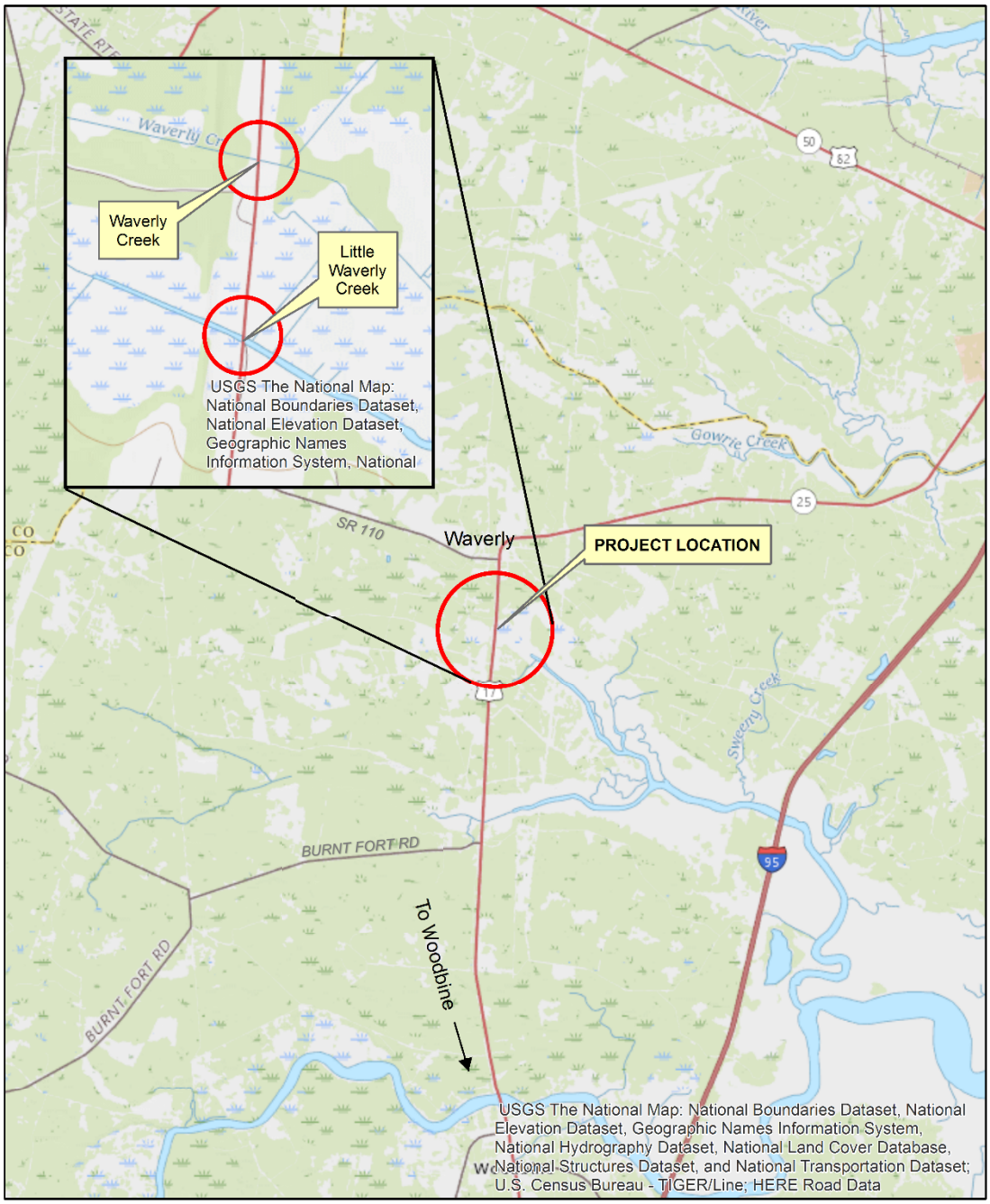
Concur: GDOT Director of Engineering — Date: 7/30/18

Approve: GDOT Chief Engineer — Date: 8/1/18

*- RECOMMENDATION ON FILE

PROJECT LOCATION MAP

PROJECT LOCATION MAP



GDOT PI. 0013739 Camden County
SR25 @ Little Waverly & Waverly Creek
N of Woodbine

0 1 2 4 6 Miles

N

PLANNING & BACKGROUND DATA

Project Justification Statement:
This project consists of two bridges on SR 25 in Camden County that were built in 1955. Both structures were designed using an HS-20 vehicle, which is below current design standards. The first structure is located on SR 25 over Little Waverly Creek, Structure ID 039-0009-0. The second structure is located on SR 25 over Waverly Creek, Structure ID 039-0010-0. Both of these bridges consist of three spans of reinforced concrete deck girders (RCDG's) on concrete caps with concrete piles. The overall condition of both bridges would be classified as satisfactory. The decks and superstructures are in good condition. The substructures are in fair condition, but they are classified as scour critical. The substructures show signs of concrete deterioration and cracking in all piles. Due to the structural integrity of the bridges pertaining to their design vehicles, the scour critical rating of the substructures, and the deterioration of their concrete piles, replacement of these bridges is recommended. This statement was prepared by the GDOT Office of Bridge Design.

Existing conditions: State Route (SR) 25/Ocean Highway consists of two 12-foot lanes with rural (grass) shoulders with the bridge structures over Little Waverly Creek (Structure ID 039-0009-0) & Waverly Creek (Structure ID 039-0010-0) that were both built in 1955. There are existing overhead and underground utilities present.

Other projects in the area: PI# 0013738 SR 25 @ Whiteoak Creek 5 MI N of Woodbine.

MPO: N/A - not in an MPO **TIP #:** N/A

Congressional District(s): 1

Federal Oversight: ☐PoDI ☒Exempt ☐State Funded ☐Other

Projected Traffic: AADT 24 HR T: 11.5%
Current Year (2018): 2,325 Open Year (2022): 2,425 Design Year (2042): 2,950
Traffic Projections Performed by: BARGE Design Solutions
Date approved by the GDOT Office of Planning: 4/03/2018

Functional Classification (Mainline): Rural Principal Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:
Warrants met: ☒None ☐Bicycle ☐Pedestrian ☐Transit

Pavement Evaluation and Recommendations
Initial Pavement Evaluation Summary Report Required? ☒No ☐Yes
Feasible Pavement Alternatives: ☒HMA ☐PCC ☐HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: The proposed project would construct replacement bridges for the existing structurally deficient bridges over Little Waverly Creek and over Waverly Creek. The preferred alternative proposes to detour traffic off-site during construction and replace the bridges in their existing locations. The project typical section consists of two 12-foot lanes with a 10-foot shoulder. The approximate project length is 0.51-miles and is located in Camden County with a design speed of 55 mph.

Major Structures:

Structure ID	Existing	Proposed
039-0009-0	The structure is a three-span bridge with a maximum span length of 33-feet for a total length of 99-feet. The concrete slab is 6-inches deep by 34.2-feet wide out-to-out. The clear roadway distance is 27.7-feet from curb-to-curb.	The proposed structure will be approximately 100-feet long by 43.25-feet wide (two 12-foot lanes, with an 8-foot shoulder, and a 1.625-foot barrier).
039-0010-0	The structure is a three-span bridge with a maximum span length of 33-feet for a total length of 99-feet. The concrete slab is 6-inches deep by 34-feet wide out-to-out. The clear roadway distance is 27.8-feet from curb-to-curb.	The proposed structure will be approximately 100-feet long by 43.25-feet wide (two 12-foot lanes, with an 8-foot shoulder, and a 1.625-foot barrier).

Accelerated Bridge Construction (ABC) techniques anticipated: ☒ No ☐ Yes
ABC techniques are not recommended for this project because the environmental impacts would be similar, or possibly greater, than standard construction techniques.

Mainline Design Features: ***SR25***

Feature	Existing	Policy	Proposed
Typical Section			
- Number of Lanes	2		2
- **Lane Width(s)**	**12-ft**	**11-ft to 12-ft**	**12-ft**
- **Median Width & Type**	**N/A**	**N/A**	**N/A**
- **Outside Shoulder Width**	**Varies 2-ft to 10-ft**	**10-ft**	**10-ft (4-ft paved)**
- **Outside Shoulder Slope**	**Varies 5% to 30%**	**6%**	**6%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**N/A**	**N/A**
- Auxiliary Lanes	N/A		N/A
- **Bike Accommodations**	**N/A**	**N/A**	**N/A**
Posted Speed	55mph		55mph
Design Speed	**55 mph**	**55 mph**	**55mph**
Minimum Horizontal Curve Radius	**N/A**	**1060-ft**	**N/A**
Maximum Superelevation Rate	**N/A**	**6%**	**6%**
Maximum Grade	**4% - 5%**	**4% - 5% max**	**4% - 5%**
Access Control	Permit	Permit	Permit
Design Vehicle	Undeterminded		WB-62
Pavement Type	HMA		HMA

*According to current GDOT design policy if applicable

Is the project located on a NHS roadway? ☒ No ☐ Yes

Design Exceptions/Design Variances to GDOT and/or FHWA Controlling Criteria anticipated: None
Design Variances to GDOT Standard Criteria anticipated: None

Lighting required: ☒ No ☐ Yes

Off-site Detours Anticipated: ☐ No ☐ Undetermined ☒ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant
TMP Components Anticipated: ☒ TTC

INTERCHANGES AND INTERSECTIONS

Major Interchanges/Intersections: N/A

Intersection Control Evaluation (ICE) Required: ☒ No ☐ Yes

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements: Atlanta Gas Light, Bellsouth (AT&T), TDS, GA Power-Distribution, Alma Telephone (ATC)

SUE Required: ☐ No ☒Yes

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way: Existing width: Varies 150-200ft. Proposed width: Varies 150-200ft.
Required Right-of-Way anticipated: ☐ None ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☐ Permanent ☐ Utility ☐ Other

Anticipated total number of impacted parcels: 2
Displacements anticipated: Businesses: N/A
Residences: N/A
Other: N/A
Total Displacements: N/A

Impacts to USACE property anticipated? ☐ No ☐ Yes ☒ Undetermined
Impact to surrounding salt marsh is likely, therefore evaluation is underway to determine if Permittee Responsible Mitigation or In-Lieu Fee for mitigation credits is required. See "Environmental and Permits" section below for additional information.

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: N/A

Context Sensitive Solutions Proposed: N/A

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:
NEPA: ☐ PCE ☒ CE ☐ EA-FONSI
GEPA: ☐ Type A ☐ Type B ☐ None

Level of Environmental Analysis:

☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:

MS4 Compliance – Is the project located in an MS4 area? ☒ No ☐ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated: Potential stream buffer variance and Section 404 permit from USACE

Air Quality:

Is the project located in an Ozone Non-attainment area?	☒ No	☐ Yes
Carbon Monoxide hotspot analysis required?	☒ No	☐ Yes

NEPA/GEPA Comments & Information:

NEPA: The Georgia Coast Rail Trail, a 6.25-mile public recreational trail, runs directly parallel to the bridge approximately 400-500 feet to the west. The proposed project is located in a Census Tract with 79.8% of the population designated as white, non-Hispanic and 8% below the poverty threshold, so EJ will likely not be a focus if further research confirms the desktop survey.

Ecology: Based on field surveys nine wetlands (including salt marsh), three perennial stream (Waverly Creek, Little Waverly Creek, and unnamed tributary) and one open water are located within the project limits.

The US Fish and Wildlife Service IPaC lists the West Indian manatee (Trichechus manatus), piping plover (Charadrius melodus), red knot (Calidris canutus rufa), red-cockaded woodpecker (Picoides borealis), wood stork (Mycteria americana), eastern indigo snake (Drymarchon corais couperi), gopher tortoise (Gopherus Polyphemus), green sea turtle (Chelonia mydas), leatherback sea turtle (Dermochelys coriacea), loggerhead sea turtle (Caretta caretta), and the striped newt (Notophthalmus perstriatus). Consultation with USFWS and Georgia Department of Natural Resources (DNR) revealed the project area as habitat for the bald eagle (Haliaeetus leucocephalus), the osprey (Pandion haliaetus), and MacGillivray's seaside sparrow (Ammodramus maritimus macgillivraii), all species of concern. DNR noted the record of a nesting bald eagle and records of marine mammals within 3 miles of the proposed project. Additionally, USFWS noted three wood stork rookeries within 12 miles of the project APE.

No species or habitat were identified for listed species from USFWS or GA DNR. However, hooded pitcher plant (Sarracenia minor) were identified within the project limits. The plant is a state listed. A protected species survey will be conducted to identify additional species presence.

The presence and likely impact to coastal salt marsh would require development of a Permittee Responsible Mitigation (PRM) Plan. Because of the lack of available salt marsh mitigation banks and credits the PRM is required to identify and develop a mitigation site for impacts. The PRM would be developed with the permit submitted to the US Army Corps of Engineers.

Archaeology: Fieldwork has not yet been completed. Based on a desktop survey including the Georgia Archaeological Site Files, there are no previously identified archaeological sites located within a 1-kilometer radius of the proposed project area.

History: One potentially eligible resource was identified along the corridor; SR 17/US 25 (i.e. Coastal Highway). The eligibility has not been concurred with by the SHPO. The bridges to be replaced are not listed as eligible on the Georgia Historic Bridge Survey, and are not considered a contributing feature to the Coastal Highway. Replacement of the bridges is not anticipated to result in an Individual Section 4(f) evaluation.

Air Quality: Based on project type and location a qualitative air assessment is anticipated.

Noise Effects: Based on project type and location a Type III Noise Screening Analysis is anticipated.

Public Involvement: Based on constructability and environmental mitigation concerns, an off-site detour is preferred, requiring a public involvement open house.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated? ☒ No ☐ Yes

Project Meetings: Concept Team Meeting occurred on May 7, 2018. The PIOH/PDOH is planned to occur by mid-January 2019.

Other coordination to date: N/A

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Barge Design Solutions, Inc.
Design	Barge Design Solutions, Inc.
Right-of-Way Acquisition	GDOT – Office of Right of Way
Utility Coordination (Preconstruction)	GDOT- Office of Utilities
Utility Relocation (Construction)	Utility Owners
Letting to Contract	GDOT – Office of Construction Bidding Admin.
Construction Supervision	GDOT – District 5 Construction
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	Edwards-Pitman
Environmental Mitigation	GDOT – Environmental Services
Construction Inspection & Materials Testing	GDOT – Materials and Research Office

Project Cost Estimate and Funding Responsibilities:

	PE Activities		ROW	Reimbursable Utilities	CST*	Total Cost
	PE Funding	Section 404 Mitigation				
Funded By	GDOT	GDOT	GDOT	GDOT	GDOT	
$ Amount	$700,000.00	$329,560.00	TBD**	$40,000.00	$4,406,295.88	$5,475,855.88
Date of Estimate	2017	7/12/2018	N/A	5/08/2018	7/09/2018	

* CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

** Programming level cost is $300,000. ROW estimate requested on 3/07/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

ALTERNATIVES DISCUSSION

Preferred Alternative: *Replacement in Existing Location with an Off-Site Detour*			
Estimated Property Impacts:	**3 parcels**	**Estimated Total Cost:**	**$5,475,855.88**
Estimated ROW Cost:	**TBD****	**Estimated CST Time:**	**24 months**
Rationale: This alternative would replace the existing bridges over Little Waverly Creek and Waverly Creek in-place while utilizing I-95 as an off-site detour during construction. The off-site detour gross length required for this alternative would be approximately 31-miles from bridge end to bridge end. This alternative provides for the least amount of impact to environmental resources which includes stream, wetland, salt marsh, and protected species. This alternative would impact two parcels. The estimated duration of the detour will be approximately 12 months.			

** Programming level cost is $300,000. ROW estimate requested on 3/07/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

Alternative 2: *Replacement in Existing Location with an On-Site Detour*			
Estimated Property Impacts:	**4 parcels**	**Estimated Total Cost:**	**$9,237,939.83*****
Estimated ROW Cost:	**TBD****	**Estimated CST Time:**	**24 months**
Rationale: This alternative would close the existing bridges to traffic and provide an on-site detour during construction. The on-site detour would temporarily shift traffic west of the existing alignment and utilize temporary bridges downstream of the existing bridges. An on-site detour will increase additional environmental impacts such as salt marsh, stream, wetland, and protected species impacts which will increase 404 mitigation costs. This alternative would impact four parcels. This alternative is not recommended.			

** Programming level cost is $300,000. ROW estimate requested on 3/07/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

*** This figure does not include a cost estimate for Section 404 mitigation.

Alternative 3: *West Alignment Shift - Replacement*			
Estimated Property Impacts:	**5 parcels**	**Estimated Total Cost:**	**$6,429,199.85*****
Estimated ROW Cost:	**TBD****	**Estimated CST Time:**	**24 months**
Rationale: This alternative would permanently shift the alignment of SR 25 just west of the existing bridge locations for a length of approximately 0.95-miles. Traffic would be maintained on the existing alignment during construction. This alternative would lengthen the area of impact to the existing route, affecting five parcels for right-of-way acquisition. This alternative is not recommended.			

** Programming level cost is $300,000. ROW estimate requested on 3/07/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

*** This figure does not include a cost estimate for Section 404 mitigation.

Alternative 4: *East Alignment Shift - Replacement*			
Estimated Property Impacts:	**6 parcels**	**Estimated Total Cost:**	**$7,055,940.21*****
Estimated ROW Cost:	**TBD****	**Estimated CST Time:**	**24 months**
Rationale: This alternative would permanently shift the alignment of SR 25 just east of the existing bridge locations for approximately 1.16-miles. Traffic would be maintained on the existing alignment during construction. This alternative, similar to Alternative 3 above, would lengthen the area of impact to the existing route, affecting six parcels for right-of-way acquisition. This alternative is not recommended.			

** Programming level cost is $300,000. ROW estimate requested on 3/07/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

*** This figure does not include a cost estimate for Section 404 mitigation.

No-Build Alternative: *No Build*			
Estimated Property Impacts:	**0 parcels**	**Estimated Total Cost:**	**$0**
Estimated ROW Cost:	**$0**	**Estimated CST Time:**	**0 months**
Rationale: This is not an acceptable option as the bridge design is below current standards, the substructure is classified as scour critical with signs of concrete deterioration in the piles, and does not meet the project justification.			

Additional Comments/ Information:

Replacement in Existing Location with an Off-site Detour

Early coordination Letters were sent out by the department (8/4/2017) and responses received from Camden County Public Works (11/21/2017), Emergency Management Agency (11/21/2017), and Schools Operations (9/5/2017). County officials expressed major concerns associated with the impacts to services such as emergency response times and school bus route revisions if the bridges were closed up to a year and an off-site detour provided. For this reason, an on-site detour was considered as the initial preferred alternative; however, during the Concept Team Meeting (5/7/2018), discussions took place that detailed concerns with the on-site detour including significant environmental impacts, a dramatic increase in construction costs, and limited services disruption between the two detour options that led to the eventual determination that an off-site detour is the preferred alternative.

In order to provide an on-site detour at Little Waverly Creek and Waverly Creek, at each location, a new temporary roadway alignment, detour bridge, and work bridge would need to be constructed to route local traffic onto while the existing bridge is replaced in its existing location. These on-site detour alignments would be placed at the downstream side which would require additional right-of-way and increase construction costs. Also, the on-site detour would require considerable fill which creates additional environmental impacts to the surrounding identified streams, wetlands, and saltwater marsh which would, in turn, greatly increase the amount of mitigation costs as compared to utilizing an off-site detour.

Therefore, utilizing an off-site detour would not only alleviate the environmental and construction cost impacts of an on-site detour, it would also likely not be as considerable of an impact to services as previously noted in the early coordination responses from County officials. The primary concerns about an off-site detour conveyed by locals are impacts to local traffic travel times, response times of emergency personnel, and bus route revisions needed for locally affected students. From the Concept Team Meeting, the impacts will be minimal and local officials should have sufficient time to prepare for closure of the existing bridges and shifting of traffic to an off-site detour. The proposed detour route utilizes SR 25 and I-95, which runs parallel to SR 25. The travel distance between Waverly and Woodbine along SR 25 currently is approximately 9.5-miles while the travel distance if using the proposed detour route would be approximately 28-miles, resulting in a net detour length of 18.5-miles. Local traffic would not be limited to using the proposed detour route as there are alternative local routes that would facilitate local traffic between the Waverly, White Oak, and Woodbine areas which would also result in a lesser net detour length. Additionally, given the locations of Camden County Fire Rescue Station 17 in Waverly and the Woodbine Fire Station, which are both approximately 5-miles from White Oak on either side, impacts to emergency response times to locals would be minimal with the closure of the existing bridges over Little Waverly Creek and Waverly Creek. Furthermore, area hospitals are located to both the north and south of the proposed project area approximately 20-25 miles away in Brunswick and St. Marys. Furthermore, based on the early coordination response from Camden County Schools, approximately 20 students would be affected by the closure of the existing bridges and an off-site detour. Lastly, because this project and P.I. 0013738 will utilize the same detour route, the construction of the three projects among both project will need to be sequenced

such that both project areas are not closed to traffic at the same time and access for local traffic is maintained. Additional coordination letter need to be sent out to Camden County Public Works, Emergency Management Agency, and Schools Operations from the Department based on these findings.

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detour Map
4. Cost Estimates
5. Concept Utility Report
6. Traffic Approval Letter
7. Existing Bridge SI&A
8. Concept Team Meeting Minutes

Attachment #1: Concept Layout

- Preferred Alternative: Replacement in Existing Location with an Off-Site Detour

RAILROAD R/W

GEORGIA COAST RAIL-TRAIL

GEORGIA COAST RAIL-TRAIL

RAILROAD R/W

LITTLE WAVERLY CREEK

EXIST. R/W

EXIST. R/W

SR25/OCEAN HWY.

EXIST. R/W

BEGIN CONSTRUCTION
P.I. 0013739

BEGIN BRIDGE "1

END BRIDGE "1

EXIST. R/W

LITTLE WAVERLY CREEK

THE LOCATION AND TYPE OF ROADWAY MAY CHANGE.
PROPOSED RIGHT-OF-WAY WIDTHS ARE ESTIMATES.
AERIAL IMAGE OBTAINED FROM GOOGLE EARTH AND IS FOR INFORMATIONAL PURPOSES ONLY.

GDOT P.I. 0013739

SR25 @ WAVERLY CREEK &
LITTLE WAVERLY CREEK

PREFERRED ALTERNATIVE
OFF-SITE DETOUR

GDOT

BARGE
DESIGN SOLUTIONS

CONCEPT LAYOUT FOR
CONCEPT REPORT
SHEET 1 OF 3

SCALE IN FEET
0 50 100 200

LEGEND

EXISTING INFORMATION	PROPOSED INFORMATION
CENTERLINE	PROPOSED LANES
EXIST. RIGHT-OF-WAY	PROPOSED SHOULDER
REQ'D RIGHT-OF-WAY	PROPOSED DRIVEWAY
ESA	NEW/WIDENED BRIDGE
WATER FEATURES	G.W.D. BOUNDARY
	RAILROAD R.O.W.

RAILROAD R/W

GEORGIA COAST RAIL-TRAIL

RAILROAD R/W

RAILROAD R/W

GEORGIA COAST RAIL-TRAIL

270TH G.M.D.

33RD G.M.D.

RAILROAD R/W

WAVERLY CREEK

DRIVEWAY #1

REQ'D R/W

EXIST. R/W

EXIST. R/W

SR25/OCEAN HWY

EXIST. R/W

END BRIDGE #2

EXIST. R/W

DRIVEWAY #2

REQ'D R/W

BEGIN BRIDGE #2

EXIST. R/W

WAVERLY CREEK

THE LOCATION AND TYPE OF ROADWAY MAY CHANGE.
PROPOSED RIGHT-OF-WAY WIDTHS ARE ESTIMATES.
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GDOT PI. 0013739

SR25 @ WAVERLY CREEK & LITTLE WAVERLY CREEK

PREFERRED ALTERNATIVE OFF-SITE DETOUR

GDOT

BARGE DESIGN SOLUTIONS

CONCEPT LAYOUT FOR CONCEPT REPORT
SHEET 2 OF 3

SCALE IN FEET
0 50 100 200

LEGEND

EXISTING INFORMATION	PROPOSED INFORMATION
CENTERLINE	PROPOSED LANES
EXIST. RIGHT-OF-WAY	PROPOSED SHOULDER
REQ'D RIGHT-OF-WAY	PROPOSED DRIVEWAY
ESA	NEW/WIDENED BRIDGE
WATER FEATURES	G.M.D. BOUNDARY
	RAILROAD R.O.W.

RAILROAD R/W

GEORGIA COAST RAIL-TRAIL

GEORGIA COAST RAIL-TRAIL

RAILROAD R/W

EXIST. R/W

SR25/OCEAN HWY.

EXIST. R/W

END CONSTRUCTION
PI. 0013739

EXIST. R/W

THE LOCATION AND TYPE OF ROADWAY MAY CHANGE.
PROPOSED RIGHT-OF-WAY WIDTHS ARE ESTIMATES.
AERIAL IMAGE OBTAINED FROM GOOGLE EARTH AND IS FOR INFORMATIONAL PURPOSES ONLY.

GDOT PI. 0013739

SR25 @ WAVERLY CREEK &
LITTLE WAVERLY CREEK

PREFERRED ALTERNATIVE
OFF-SITE DETOUR

GDOT

BARGE
DESIGN SOLUTIONS

CONCEPT LAYOUT FOR
CONCEPT REPORT
SHEET 3 OF 3

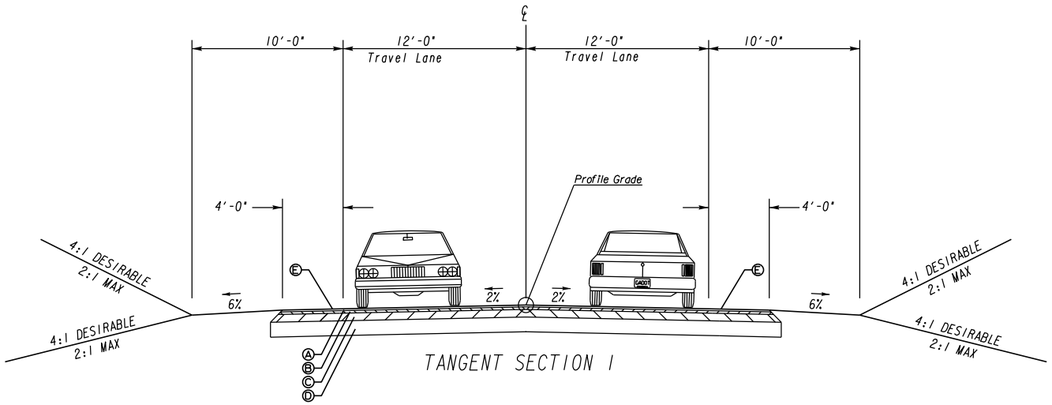
SCALE IN FEET
0 50 100 200

LEGEND

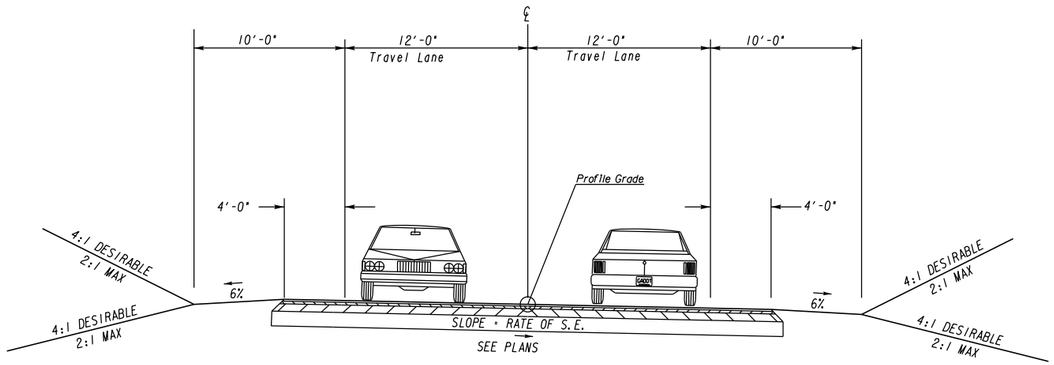
EXISTING INFORMATION	PROPOSED INFORMATION
CENTERLINE	PROPOSED LANES
EXIST. RIGHT-OF-WAY	PROPOSED SHOULDER
REQ'D RIGHT-OF-WAY	PROPOSED DRIVEWAY
ESA	NEW/WIDENED BRIDGE
WATER FEATURES	G.W.D. BOUNDARY
	RAILROAD R.O.W.

Attachment #2: Typical Sections

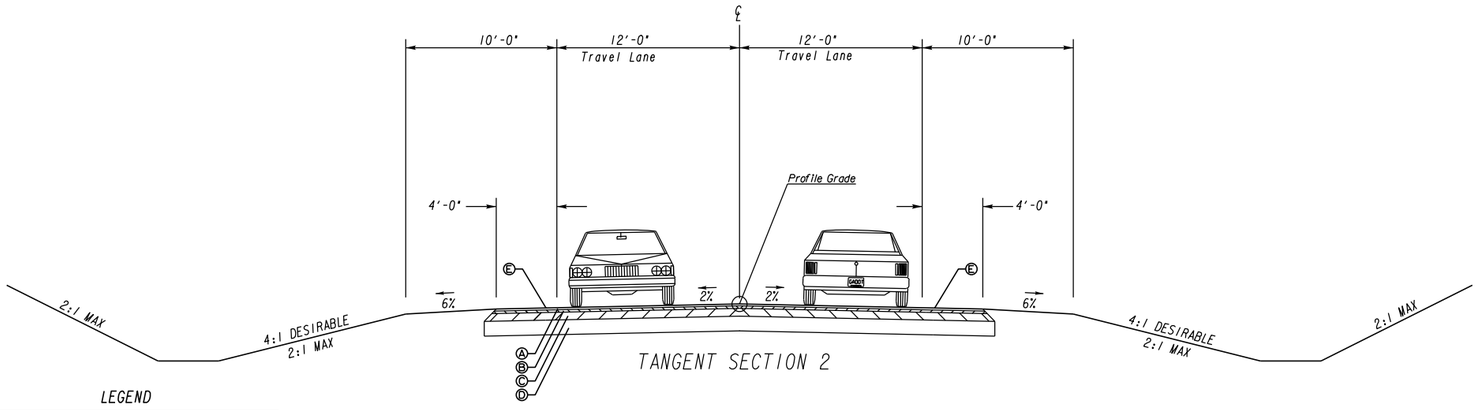
- Roadway Typical
- Bridge Typical



TANGENT SECTION 1



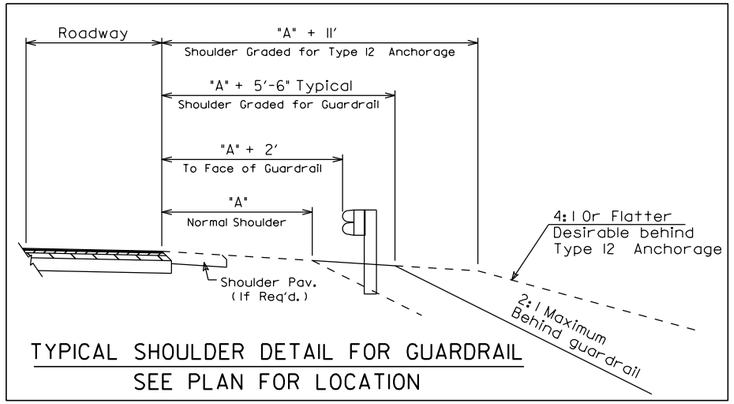
SUPER ELEVATED SECTION



TANGENT SECTION 2

LEGEND

- Ⓐ RECYCLED ASPH CONC 9.5 MM SUPERPAVE, TYPE 11, BLEND 1, INCL BITUM MATL & H LIME (137.5 LB/SY)
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LB/SY)
- Ⓒ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LB/SY)
- Ⓓ GRADED AGGR BASE CRS, 8 INCH, INCL MATL
- Ⓔ INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (CONTINUOUS)



TYPICAL SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION

BARGE DESIGN SOLUTIONS

SCALE IN FEET
0 5 10 20

REVISION DATES

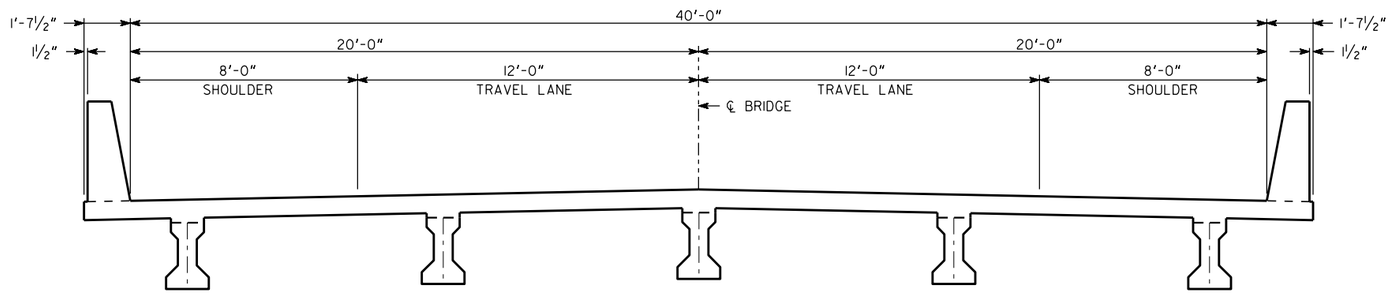
TYPICAL SECTIONS

SR25 @ LITTLE WAVERLY & WAVERLY CREEK
N OF WOODBINE

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		05-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

GDOT	P.I. NO.
	0013739



TYPICAL SECTION OVER WAVERLY CREEK
TYPICAL SECTION OVER LITTLE WAVERLY CREEK

BRIDGE NO. 1

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

TYPICAL SECTIONS
SR 25 OVER WAVERLY CREEK
AND LITTLE WAVERLY CREEK
CAMDEN COUNTY 0013739

SCALE: NO SCALE FEBRUARY 2018

DESIGNED JRL CHECKED REVIEWED
DRAWN JRL DESIGN GROUP BARGE APPROVED

REVISIONS	BY	DATE
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X

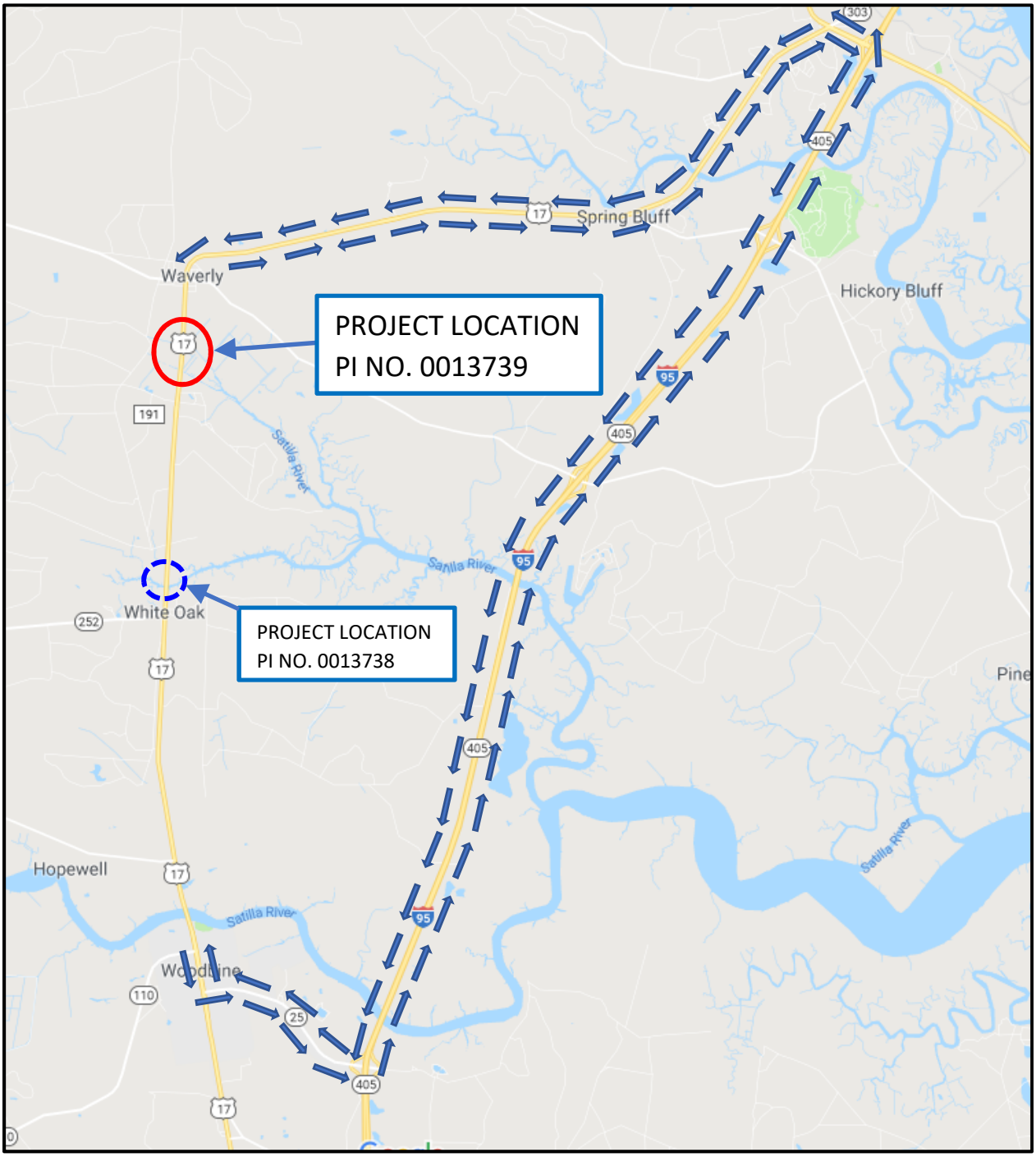
DRAWING NO. 35-0001
BRIDGE SHEET 1 OF 1

Attachment #3: Detour Map

- Proposed Off-Site Detour Map

PROJECT DETOUR MAP

PI 0013739 - SR 25 @ LITTLE WAVERLY CREEK & @ WAVERLY CREEK N OF WOODBINE



LEGEND

PROPOSED DETOUR ROUTE

DETOUR ROUTE NET LENGTH: 18.5 MILES

Attachment #4: Cost Estimates

- Revisions to Programmed Costs for Preferred Alternative
- CES Cost Estimate for Preferred Alternative
- Section 404 Mitigation Cost Estimate for Preferred Alternative

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **0013739** **OFFICE** Program Delivery

PROJECT DESCRIPTION
SR 25 @ LITTLE WAVERLY CREEK & @ WAVERLY CREEK N OF WOODBINE BRIDGE REPLACEMENT

DATE July 25, 2018

From: Kimberly Nesbitt, State Program Delivery Administrator

To: Lisa L. Myers, State Project Review Engineer
via Email Mailbox: **CostEstimatesandUpdates@dot.ga.gov**

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER: Johnny Lee, P.E. (Barge Design Solutions)

MGMT LET DATE: 12/15/2020

MGMT ROW DATE: 1/15/2020

PROGRAMMED COSTS (TPro W/OUT INFLATION)			**LAST ESTIMATE UPDATE**	
CONSTRUCTION	$	3,740,208.70	DATE	8/24/2017
RIGHT OF WAY	$	300,000.00	DATE	8/24/2017
UTILITIES	$		DATE	

REVISED COST ESTIMATES		
CONSTRUCTION*	$	4,406,295.88
RIGHT OF WAY	$	
UTILITIES	$	40,000.00

*Cost Contains **15** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

This concept cost estimate for the Preferred Alternative is based on utilitizing an off-site detour. A 15% contingency for concept level estimate used based on the Risk Based Cost Estimation memo by GDOT dated 4/30/2014. This concept level cost estimate does not include environmental mitigation costs or updated right-of-way costs.

CONTINGENCY SUMMARY

A.	**CONSTRUCTION COST ESTIMATE:**	$ 3,611,488.74	Base Estimate From CES		
B.	**ENGINEERING AND INSPECTION (E & I):**	$ 180,574.44	Base Estimate (A) x	**5**	%
C.	**CONTINGENCY:**	$ 568,809.48	Base Estimate (A) + E & I (B) x	**15**	%
			See % Table in "Risk Based Cost Estimation" Memo		
D.	**TOTAL LIQUID AC ADJUSTMENT:**	$ 45,423.23	Total From Liquid AC Spreadsheet		
E.	**CONSTRUCTION TOTAL:**	$ **4,406,295.88**	(A + B + C + D = E)		

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
Atlanta Gas Light	$ -
Bellsouth (AT&T)	$ -
TDS	$ -
GA Power - Distribution	$ 40,000.00
Alma Telephone	$ -
TOTAL	**$ 40,000.00**

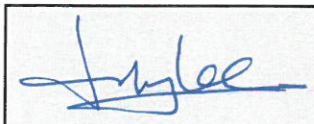
ATTACHMENTS: (File Copy in the Project Cost Estimate Folder)

Liquid AC Adjustment Spreadsheet
PSR

Consultant Validation of Final QC/QA for Construction Cost Estimate Used in This Revision To Programmed Costs

COMPANY NAME:	Barge Design Solutions, Inc.

VALIDATION OF FINAL QC/QA

PRINTED NAME:	Johnny Lee
TITLE:	Project Manager
SIGNATURE:	
DATE:	7-25-2018

PROJ. NO.	N/A	CALL NO.	0/00/2016
P.I. NO.	0013739		
DATE	7/12/2018		

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jul-18	$ 2.714
DIESEL		$ 3.083
LIQUID AC		$ 507.00

Link to AC Index:
http://www.dot.ga.gov/PS/Materials/AsphaltFuelIndex

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				**42283.8**	**$ 42,283.80**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	811.20	
Monthly Asphalt Cement Price month project let (APL)			$	507.00	
Total Monthly Tonnage of asphalt cement (TMT)				139	

ASPHALT	Tons	%AC	AC ton
Leveling	26	5.0%	1.3
12.5 OGFC	0	5.0%	0
12.5 mm	0	5.0%	0
9.5 mm SP	551	5.0%	27.55
25 mm SP	1322	5.0%	66.1
19 mm SP	881	5.0%	44.05
	2780		**139**

BITUMINOUS TACK COAT

Price Adjustment (PA)				**$ 1,046.56**	**$ 1,046.56**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	811.20	
Monthly Asphalt Cement Price month project let (APL)			$	507.00	
Total Monthly Tonnage of asphalt cement (TMT)				3.440375839	

Bitum Tack Gals	gals/ton	tons
801	232.8234	3.44037584

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**2092.863346**	**$ 2,092.86**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	811.20	
Monthly Asphalt Cement Price month project let (APL)			$	507.00	
Total Monthly Tonnage of asphalt cement (TMT)				6.879892657	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.	8009	0.20	1601.8	232.8234	6.879892657
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					6.879892657

TOTAL LIQUID AC ADJUSTMENT	**$ 45,423.23**

STATE HIGHWAY AGENCY

DATE : 07/25/2018
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0013739_ALT2 SPEC YEAR: 13
DESCRIPTION: SR 25 @ LITTLE WAVERLY CREEK & @ WAVERLY CREEK N OF WOODBINE
PREFERRED ALTERNATIVE - OFF-SITE DETOUR

COST GROUPS FOR JOB 0013739_ALT2

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
STRO	STRUCTURES, OTHER (SF)	8650.000	150.00000	1297500.00	Y
EROC	EROSION CONTROL (SY)	1.000	350000.00000	350000.00	Y
DRNG	DRAINAGE	1.000	55000.00000	55000.00	Y
MISC	SIGNING & MARKING	1.000	35000.00000	35000.00	Y
ACTIVE COST GROUP TOTAL				1737500.00	
INFLATED COST GROUP TOTAL				1737500.00	

ITEMS FOR JOB 0013739_ALT2

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0013739	1.000	70000.00	70000.00
0010	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	102569.60	102569.60
0015	210-0100		LS	GRADING COMPLETE - 0013739	1.000	800000.00	800000.00
0025	310-5060		SY	GR AGGR BS CRS 6IN INCL MATL	202.000	13.47	2721.26
0030	310-5080		SY	GR AGGR BS CRS 8IN INCL MATL	8009.000	19.01	152297.62
0035	402-1812		TN	RECYL AC LEVELING,INC BM&HL	26.000	132.21	3437.48
0040	402-3103		TN	REC AC 9.5 MM SP,TPII,GP2, INCL BM & HL	551.000	86.99	47935.34
0045	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	1322.000	87.76	116020.65
0050	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	881.000	93.88	82713.25
0055	413-0750		GL	TACK COAT	801.000	1.86	1489.86
0060	432-5010		SY	MILL ASPH CONC PVMT,VARB DEPTH	312.000	2.42	755.04
0065	433-1200		SY	REF CONC APPR SL/I SLOPED EDGE	577.000	187.28	108060.68
0100	641-1100		LF	GUARDRAIL, TP T	175.000	71.49	12511.13
0105	641-1200		LF	GUARDRAIL, TP W	2137.500	18.77	40136.80
0110	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	4.000	1065.64	4262.58
0150	540-1101		LS	REM OF EX BR, STA NO - 0013739	1.000	151470.00	151470.00
0155	540-1101		LS	REM OF EX BR, STA NO - 0013739	1.000	151470.00	151470.00
0160	641-5020		EA	GUARDRL, ANCHOR, TP 12B,31 IN, FLR, E/A	4.000	2387.52	9550.08
0165	632-0003		EA	CHANGEABLE MESS SIGN,PORT,TP 3	2.000	7783.09	15566.19
0170	456-2020		GLM	INDENT, EDG LN RUMB STRP	1.000	1021.18	1021.18

-GND-IN-PL(CON)

ITEM TOTAL	1873988.74
INFLATED ITEM TOTAL	1873988.74

TOTALS FOR JOB 0013739_ALT2

STATE HIGHWAY AGENCY

DATE : 07/25/2018
PAGE : 2

JOB ESTIMATE REPORT

ESTIMATED COST:	3611488.74
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	3611488.74

Johnny Lee

From: Westberry, Lisa <lwestberry@dot.ga.gov>
Sent: Thursday, July 12, 2018 1:24 PM
To: Ghazi, Aghdas; Johnny Lee
Cc: Jackson, Keisha
Subject: P.I. 0013739 Camden County - Estimated Mitigation Cost for Concept Report

Aghdas/Johnny,

As requested, the estimated mitigation costs for the subject project is **$329,560.00.** This estimate was based on the assumption that credits would be available for purchase as I believe that credits will be available for purchase within six to nine months. The estimate was also based on actual field verification of resources. The final cost of mitigation credits is dependent upon the final design and the actual cost of the credits.

If you should have any questions or need any additional information, please do not hesitate to contact me. Thank you.

Lisa Westberry
Special Projects Coordinator

GDOT Georgia Department of Transportation

Office of Environmental Services
One Georgia Center, 16th Floor
600 West Peachtree Street, NW
Atlanta, GA, 30308
404.631.1772

Attachment #5: Concept Utility Report

- PI# 0013739 Concept Utility Report

Original Version: May 24, 2013

Concept Utility Report

Project Number: _____ **District:** 5

County: Camden **Prepared by:** Leslie Dubberly

P.I. # 0013739 **Date:** May 8, 2018

Project Description: SR 25 @ Little Waverly Creek & @ Waverly Creek N of Woodbine

The information provided herein has been gathered from Georgia811and/or field visits and serves as an estimate. Nothing contained in this report is to be used as a substitute for 1st Submission or SUE.

Are SUE services recommended? SUE has been preformed Level: ☐A ☐B ☐C ☒D

Public Interest Determination (PID): ☐ Automatic ☐ Mandatory ☐ Consideration

☒ No Use ☐ Exempt

Is a separate utility funding phase recommended? No

Existing Facilities: Atlanta Gas Light (AGL), Bellsouth (ATT), TDS, GA Power-Distribution, Alma Telephone (ATC)

Potential Project (Schedule/Budget) Impacts: N/A

Capital Improvement Projects (Utilities) Anticipated in the Area: N/A

Project Specific Recommendations for Avoidance/Mitigation: N/A

Right of Way Coordination Concerns: N/A

Environmental Coordination: N/A

Additional Remarks: N/A

The following utilities have facilities within the project limits. Utilities have been located using Georgia811 and/or field visits.

Existing Facilties/Appurtenances	Approximate Limits (Station/Offset)	Reimbursable cost (est.)	Non-reimbursable cost (est.)	Facilities to Avoid (Station/Offset)	Facility Retention Recommended	Comments
Atlanta Gas Light	Attached to both bridges W side		**$380,160.00**			
Bellsouth (ATT)	Attached to both bridges E side		**$63,360.00**			
TDS	Entire project		**$63,360.00**			
GA Power-Distribution	W side entire project	**$40,000.00**				
Alma Telephone	Buried E side entire project		**$63,360.00**			

Attachment #6: Traffic Approval Letter

- PI# 0013739 Traffic Assignments Memo and Approval Letter

Department of Transportation
State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Camden County
P.I. # 0013739

OFFICE Planning

DATE April 3, 2018

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Kimberly Nesbitt, State Program Delivery Administrator
Attention: Aghdas Ghazi

SUBJECT **Design Traffic Forecasts** for SR 25 @ LITTLE WAVERLY CREEK & @ WAVERLY CREEK N OF WOODBINE

Per request, we have reviewed the consultant's design traffic forecasts for the above project. Based on the information furnished, we find the design traffic forecasts to be satisfactory, and the design traffic forecasting task to be complete for the above project. The reviewed and approved design traffic forecast for the above project is as follows:

BRIDGE ID # 039-0009-0 LITTLE WAVERLY CREEK, 039-0010-0 (WAVERLY CREEK)

Build = No Build	2018 (Existing Year)	2022 (Base Year)	2024 (Base Year +2)	2042 (Design Year)	2044 (Design Year + 2)
AADT	2325	2425	2475	2950	3000
DHV (AM/PM)	160/ 210	165/ 220	170/ 225	205/ 265	205/ 270
K% (AM/PM)	6.9%/ 9.1%	Same as Existing Year			
D% (AM/PM)	56%/ 56%				
24 HR. T% - S.U.	7.5%				
24 HR. T% - COMB.	4.0%				
24 HR. T% - TOTAL	11.5%				
T% - S.U. (AM/PM)	6.0%/ 5.0%				
T% - COMB. (AM/PM)	3.5%/ 3.0%				
T% - TOTAL (AM/PM)	9.5%/ 8.0%				

If you have any questions concerning this information, please contact Andre Washington at 404-631-1925.

Andre Washington
Office Of Planning
5th Floor, One Georgia Center
404-631-1925

CLV/AMW

Attachment #7: SI&A Report

(Provided by GDOT)

- Existing Bridge 039-0009-0 SI&A Report
- Existing Bridge 039-0010-0 SI&A Report

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:12/12/2017

Parameters: Bridge Serial Number

Bridge Serial Number: 039-0009-0 **County: Camden** **SUFF. RATING: 64.0**

Location & Geography

Structure ID:	039-0009-0
200 Bridge Information:	06
*6 Feature Intersected:	LITTLE WAVERLY CREEK
*7A Route Number Carried:	SR00025
*7B Facility Carried:	US 17 OCEAN HWY
9 Location:	7 MI N OF WOODBINE
2 GDOT District:	4841500000 - D5 District Five Jesup
*91 Inspection Frequency:	24 Date: 05/10/2017
92A Fracture Critical Insp. Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 11/13/2017
92C Other Spc. Insp Freq:	12 Date: 05/12/2016
* 4 Place Code:	00000
*5A Inventory Route(O/U):	1
5B Route Type:	2 - U.S. Numbered
5C Service Designation:	1- Mainline
5D Route Number:	00017
5E Directional Suffix:	0. Not applicable
*16 Latitude:	31 - 4.6242
*17 Longtitude:	81 - 43.6236
98A Border Bridge:	0 98B: GA% 00
99 ID Number:	000000000000000
*100 STRAHNET:	0- The Feature is not a STRAHNET route.
12 Base Highway Network:	Yes
13A LRS Inventory Route:	391002500
13B Sub Inventory Route:	0
101 Parallel Structure:	N. No parallel structure exists
*102 Direction of Traffic:	2- Two Way
*264 Road Inventory Mile Post:	23.42
*208 Inspection Area:	Area 05
*104 Highway System:	0- Inventory Route is not on the NHS
*26 Functional Classification:	6- Rural - Minor Arterial
*204A Federal Route Type:	F - Primary.
*204B Federal Route Number:	00091
105 Federal Lands Highway:	0. Not applicable
*110 Truck Route:	0- The Feature is not part of the National Network for Trucks
217 Benchmark Elevation:	0000.00
* Location ID No:	039-00025D-023.59N

218 Datum:	0- Not Applicable
*19 Bypass Length:	13
*20 Toll:	3- On a Free Road or Non-Highway
*21 Maintenance Responsibility:	01-State Highway Agency.
*22 Owner:	01-State Highway Agency.
*31 Design Load:	6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance:	5- Not eligible for the National Register of Historic Places
205 Congressional District:	001
27 Year Constructed:	1955
106 Year Reconsrtucted:	0
33 Bridge Median:	0-None
34 Skew:	0
35 Structure Flared:	No
38 Navigation Control:	0- Navigation is not controlled by an Agency
213 Special Steel Design:	0- Not applicable or other
267A Type Paint Super Structure:	0- Not Applicable. Year : 0000
267B Type Paint Sub Structure:	0- Not Applicable Year : 0000
*42A Type of Service On:	1-Highway
*42B Type of Service Under:	5-Waterway
214A Movable Bridge:	0
214B Operator on Duty:	0
203 Type Bridge:	D - Concrete pile. O. Concrete O. Concrete O. Concrete
259 Pile Encasement:	3
*43A Structure Type Main material:	1-Concrete
*43B Structure Type Main Type:	4-Tee Beam
45 Number of Main Spans:	3
44 Structure Type Approach:	A:0- Other B: 0- Other
46 Number of Approach Spans:	0
226 Bridge Curve:	A: Vertical: NoB: Horizontal: No
111 Pier Protection:	N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:	1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars
108A Wearing Surface Type:	6. Bituminous
108B Membrane Type:	8. Unknown
108C Deck Protection:	8. Unknown
265 Underwater Inspection Area:	0

Signs & Attachments

225 Expansion Joint Type:	02- Open or sealed concrete joint (silicone sealant).
242 Deck Drains:	1- Open Scuppers.
243A Parapet Location:	0- None present.
243B Parapet Height:	0.00
243C Parapet Width:	0.00
238A Curb Height:	1.2
238B Curb Material:	1- Concrete.
239A Handrail Left:	1- Concrete.
239B Handrail Right:	1- Concrete.
*240 Median Barrier Rail:	0- None.
241A Bridge Median Height:	0
241B Bridge Median Width:	0
*230A Guardrail Location Direction Rear:	3- Both sides.
*230B Guardrail Location Direction Fwrd:	3- Both sides.
*230C Guardrail Location Opposing Rear:	0- None.
*230D Guardrail Location Opposing Fwrd:	0- None.
244 Approach Slab:	3- Forward and Rear.
224 Retaining Wall:	0- None.
233 Posted Speed Limit:	55
236 Warning Sign:	No
234 Delineator:	Yes
235 Hazard Boards:	Yes
237A Gas:	21- Bottom Left.
237B Water:	00- Not Applicable
237C Electric:	00- Not Applicable
237D Telephone:	22- Bottom Right.
237E Sewer:	00- Not Applicable
247A Lighting: Street:	No
247B Navigation:	No
247C Aerial:	No
*248 County Continuity No.:	00
36A Bridge Railings:	2- Inspected feature meets acceptable construction date standards.
36B Transition:	2- Inspected feature meets acceptable construction date standards.
36C Approach Guardrail:	2- Inspected feature meets acceptable construction date standards.
36D Approach Guardrail Ends:	2- Inspected feature meets acceptable construction date standards.

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:12/12/2017

Bridge Serial Number: 039-0009-0 **County: Camden** **SUFF. RATING: 64.0**

Programming Data

201 Project Number:	BA (2) 1791 (12)
202 Plans Available:	1- Plans at General Office.
249 Proposed Project Number:	00000000000000000000000000
250A Reconstruction Approval Status:	No
250B Route Approval Status:	No
250C Approval Status Definition:	0
250D Approval Status Federal:	0
251Project Identification Number:	0013739
252 Contract Date:	02/01/1901
260 Seismic Number:	00000
75A Type Work Proposed:	0- Not Applicable
75B Work Done by:	0- Initial Inventory
94 Bridge Improvement Cost:(X$1,000)	$387
95 Roadway Improvement Cost: (X$1,000)	$39
96 Total Improvement Cost: (X$1,000)	$580
76 Improvement Length:	0.0'
97 Year Improvement Cost Based On:	2013
114 Future AADT:	3090
115 Future AADT Year:	2032

Hydraulic Data

113 Scour Critical:	3. Bridge is Scour Critical;foundations unstable for conditions
216A Water Depth:	10.2
216B Bridge Height:	6.5
222 Slope Protection:	
221A Spur Dike Rear:	
221B Spur Dike Fwd:	
219 Fender System:	0- None.
220 Dolphin:	
223A Culvert Cover:	000
223B Culvert Type:	0- Not Applicable
223C Number of Barrels:	0
223D Barrel Width:	0.0
223E Barrel Height:	0.0
223F Culvert Length:	0.0
223G Culvert Apron:	
39 Navigation Vertical Clearance:	0'
40 Navigation Horizontal Clearance:	0
116 Navigation Vertical Clear Closed:	0

Measurements:

*29 AADT:	2060
*30 AADT Year:	2012
109 % Truck Traffic:	1
* 28A Lanes On:	2
*28B Lanes Under:	0
210A Tracks On:	00
210B Tracks Under:	0
* 48 Maximum Span Length:	33
* 49 Structure Length:	99
51 Bridge Roadway Width:	27.7'
52 Deck Width:	34.2'
* 47 Total Horizontal Clearance:	27.7'
50A Curb / Sidewalk Width Left:	2.0
50B Curb / Sidewalk Width Right:	2.0
32 Approach Rdwy. Width:	29.0'

***229 Approach Roadway**

Rear Shoulder Left: Width:	3.3	*Right Width:*2.4	Type: 2 - Asphalt.
Fwd Shoulder: Left Width:	3.3	*Right Width:*2.5	Type: 2 - Asphalt.
Rear Pavement: Width:	23.8	*Type:*2- Asphalt.	
Forward Pavement: Width:	23.8	*Type:*2- Asphalt.	
Intersection Rear:	0	*Forward:*0	

53 Minimum Vertical Clearance Over Rd:	99' 99"
54A Under Reference Feature:	N- Feature not a highway or railroad.
54B Minimum Clearance Under:	0' 0"

***228 Minimum Vertical Clearance**

228A Actual Odometer Direction:	99'99"
228B Actual Opposing Direction:	99'99"
228C Posted Odometer Direction:	00'00"
228D Posted Opposing Direction:	00'00"
55A Lateral Underclearance Reference:	N- Feature not a highway or railroad.
55B Lateral Underclearance on Right:	0.0
56 Lateral Underclearance on Left:	0.0
10A Direction of Travel for Max Min:	0
10B Max Min Vertical Clearance:	99'99"
245A Deck Thickness Main:	6.0
245B Deck Thickness Approach:	0.0
246 Overlay Thickness:	2

Ratings and Posting

65 Inventory Rating Method:	1-Load Factor (LF)
63 Operating Rating Method:	1-Load Factor (LF)
66A Inventory Type:	2 - HS loading.
66B Inventory Rating:	28
64A Operating Type:	2 - HS loading.
64B Operating Rating:	47

231Calculated Loads		**Posting Required**
231A H-Modified:	21	No
231B Type3/Tandem:	25	No
231C Timber:	36	No
231D HS-Modified:	30	No
231E Type 3S2:	40	No
231F Piggyback:	40	No

261 H Inventory Rating:	21
262 H Operating Rating:	25
67 Structural Evaluation:	5
58 Deck Condition:	7 - Good Condition
59 Superstructure Condition:	7 - Good Condition
* 227 Collision Damage:	
60A Substructure Condition:	5 - Fair Condition
60B Scour Condition:	7 - Good Condition
60C Underwater Condition:	5 - Fair Condition
71 Waterway Adequacy:	8-Equal to present desirable criteria.
61 Channel Protection Cond.:	7-Better than present minimum criteria.
68 Deck Geometry:	3
69 UnderClr. Horz/Vert:	N
72 Approach Alignment:	8-No reduction of vehicle operating speed required.
62 Culvert:	N - Not Applicable
70 Bridge Posting Required:	5. Equal to or above legal loads
41 Struct Open, Posted, CL:	A. Open, no restriction
* 103 Temporary Structure:	No

232 Posted Loads

232A H-Modified:	00
232B Type3/Tandem:	00
232C Timber:	00
232D HS-Modified:	00
232E Type 3s2:	00
232F Piggyback:	00
253 Notification Date:	02/01/1901
258 Federal Notify Date:	02/01/1901

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:12/12/2017

Parameters: Bridge Serial Number

Bridge Serial Number: 039-0010-0 **County: Camden** **SUFF. RATING: 60.3**

Location & Geography

Structure ID:	039-0010-0
200 Bridge Information:	06
*6 Feature Intersected:	WAVERLY CREEK
*7A Route Number Carried:	SR00025
*7B Facility Carried:	US 17 OCEAN HWY
9 Location:	8 MI N OF WOODBINE
2 GDOT District:	4841500000 - D5 District Five Jesup
*91 Inspection Frequency:	24 Date: 05/10/2017
92A Fracture Critical Insp. Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 11/13/2017
92C Other Spc. Insp Freq:	12 Date: 05/12/2016
* 4 Place Code:	00000
*5A Inventory Route(O/U):	1
5B Route Type:	2 - U.S. Numbered
5C Service Designation:	1- Mainline
5D Route Number:	00017
5E Directional Suffix:	0. Not applicable
*16 Latitude:	31 - 4.9158
*17 Longtitude:	81 - 43.5930
98A Border Bridge:	0 98B: GA% 00
99 ID Number:	000000000000000
*100 STRAHNET:	0- The Feature is not a STRAHNET route.
12 Base Highway Network:	Yes
13A LRS Inventory Route:	391002500
13B Sub Inventory Route:	0
101 Parallel Structure:	N. No parallel structure exists
*102 Direction of Traffic:	2- Two Way
*264 Road Inventory Mile Post:	23.75
*208 Inspection Area:	Area 05
*104 Highway System:	0- Inventory Route is not on the NHS
*26 Functional Classification:	6- Rural - Minor Arterial
*204A Federal Route Type:	F - Primary.
*204B Federal Route Number:	00091
105 Federal Lands Highway:	0. Not applicable
*110 Truck Route:	0- The Feature is not part of the National Network for Trucks
217 Benchmark Elevation:	0000.00
* Location ID No:	039-00025D-023.93N

218 Datum:	0- Not Applicable
*19 Bypass Length:	13
*20 Toll:	3- On a Free Road or Non-Highway
*21 Maintenance Responsibility:	01-State Highway Agency.
*22 Owner:	01-State Highway Agency.
*31 Design Load:	6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance:	5- Not eligible for the National Register of Historic Places
205 Congressional District:	001
27 Year Constructed:	1955
106 Year Reconsrtucted:	0
33 Bridge Median:	0-None
34 Skew:	0
35 Structure Flared:	No
38 Navigation Control:	0- Navigation is not controlled by an Agency
213 Special Steel Design:	0- Not applicable or other
267A Type Paint Super Structure:	0- Not Applicable. Year : 0000
267B Type Paint Sub Structure:	0- Not Applicable Year : 0000
*42A Type of Service On:	1-Highway
*42B Type of Service Under:	5-Waterway
214A Movable Bridge:	0
214B Operator on Duty:	0
203 Type Bridge:	D - Concrete pile. O. Concrete O. Concrete O. Concrete
259 Pile Encasement:	3
*43A Structure Type Main material:	1-Concrete
*43B Structure Type Main Type:	4-Tee Beam
45 Number of Main Spans:	3
44 Structure Type Approach:	A:0- Other B: 0- Other
46 Number of Approach Spans:	0
226 Bridge Curve:	A: Vertical: NoB: Horizontal: No
111 Pier Protection:	N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:	1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars
108A Wearing Surface Type:	6. Bituminous
108B Membrane Type:	8. Unknown
108C Deck Protection:	8. Unknown
265 Underwater Inspection Area:	0

Signs & Attachments

225 Expansion Joint Type:	02- Open or sealed concrete joint (silicone sealant).
242 Deck Drains:	1- Open Scuppers.
243A Parapet Location:	0- None present.
243B Parapet Height:	0.00
243C Parapet Width:	0.00
238A Curb Height:	1.2
238B Curb Material:	1- Concrete.
239A Handrail Left:	1- Concrete.
239B Handrail Right:	1- Concrete.
*240 Median Barrier Rail:	0- None.
241A Bridge Median Height:	0
241B Bridge Median Width:	0
*230A Guardrail Location Direction Rear:	3- Both sides.
*230B Guardrail Location Direction Fwrd:	3- Both sides.
*230C Guardrail Location Opposing Rear:	0- None.
*230D Guardrail Location Opposing Fwrd:	0- None.
244 Approach Slab:	3- Forward and Rear.
224 Retaining Wall:	0- None.
233 Posted Speed Limit:	55
236 Warning Sign:	No
234 Delineator:	Yes
235 Hazard Boards:	Yes
237A Gas:	31- Side Left.
237B Water:	00- Not Applicable
237C Electric:	00- Not Applicable
237D Telephone:	32- Side Right.
237E Sewer:	00- Not Applicable
247A Lighting: Street:	No
247B Navigation:	No
247C Aerial:	No
*248 County Continuity No.:	00
36A Bridge Railings:	2- Inspected feature meets acceptable construction date standards.
36B Transition:	2- Inspected feature meets acceptable construction date standards.
36C Approach Guardrail:	2- Inspected feature meets acceptable construction date standards.
36D Approach Guardrail Ends:	2- Inspected feature meets acceptable construction date standards.

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:12/12/2017

Bridge Serial Number: 039-0010-0 **County: Camden** **SUFF. RATING: 60.3**

Programming Data

201 Project Number:	BA (2) 1791 (12)
202 Plans Available:	0- No Plans Available.
249 Proposed Project Number:	000000000000000000000000
250A Reconstruction Approval Status:	No
250B Route Approval Status:	No
250C Approval Status Definition:	0
250D Approval Status Federal:	0
251Project Identification Number:	0013739
252 Contract Date:	02/01/1901
260 Seismic Number:	00000
75A Type Work Proposed:	0- Not Applicable
75B Work Done by:	0- Initial Inventory
94 Bridge Improvement Cost:(X$1,000)	$387
95 Roadway Improvement Cost: (X$1,000)	$39
96 Total Improvement Cost: (X$1,000)	$580
76 Improvement Length:	0.0'
97 Year Improvement Cost Based On:	2013
114 Future AADT:	3090
115 Future AADT Year:	2032

Hydraulic Data

113 Scour Critical:	3. Bridge is Scour Critical;foundations unstable for conditions
216A Water Depth:	9.7
216B Bridge Height:	6.7
222 Slope Protection:	
221A Spur Dike Rear:	
221B Spur Dike Fwd:	
219 Fender System:	0- None.
220 Dolphin:	
223A Culvert Cover:	000
223B Culvert Type:	0- Not Applicable
223C Number of Barrels:	0
223D Barrel Width:	0.0
223E Barrel Height:	0.0
223F Culvert Length:	0.0
223G Culvert Apron:	
39 Navigation Vertical Clearance:	0'
40 Navigation Horizontal Clearance:	0
116 Navigation Vertical Clear Closed:	0

Measurements:

*29 AADT:	2060
*30 AADT Year:	2012
109 % Truck Traffic:	1
* 28A Lanes On:	2
*28B Lanes Under:	0
210A Tracks On:	00
210B Tracks Under:	0
* 48 Maximum Span Length:	33
* 49 Structure Length:	99
51 Bridge Roadway Width:	27.8'
52 Deck Width:	34.0'
* 47 Total Horizontal Clearance:	27.8'
50A Curb / Sidewalk Width Left:	2.0
50B Curb / Sidewalk Width Right:	2.0
32 Approach Rdwy. Width:	27.0'

***229 Approach Roadway**

Rear Shoulder Left: Width:	1.9	*Right Width*:2.2	Type: 2 - Asphalt.
Fwd Shoulder: Left Width:	2	*Right Width:* 2.3000000000000003	Type: 2 - Asphalt.
Rear Pavement: Width:	23.1	*Type:*2- Asphalt.	
Forward Pavement: Width:	23.8	*Type:*2- Asphalt.	
Intersection Rear:	0	*Forward*:0	

53 Minimum Vertical Clearance Over Rd:	99' 99"
54A Under Reference Feature:	N- Feature not a highway or railroad.
54B Minimum Clearance Under:	0' 0"

***228 Minimum Vertical Clearance**

228A Actual Odometer Direction:	99'99"
228B Actual Opposing Direction:	99'99"
228C Posted Odometer Direction:	00'00"
228D Posted Opposing Direction:	00'00"

55A Lateral Underclearance Reference:	N- Feature not a highway or railroad.
55B Lateral Underclearance on Right:	0.0
56 Lateral Underclearance on Left:	0.0
10A Direction of Travel for Max Min:	0
10B Max Min Vertical Clearance:	99'99"
245A Deck Thickness Main:	6.0
245B Deck Thickness Approach:	0.0
246 Overlay Thickness:	1

Ratings and Posting

65 Inventory Rating Method:	1-Load Factor (LF)
63 Operating Rating Method:	1-Load Factor (LF)
66A Inventory Type:	2 - HS loading.
66B Inventory Rating:	23
64A Operating Type:	2 - HS loading.
64B Operating Rating:	39

231Calculated Loads		**Posting Required**
231A H-Modified:	20	No
231B Type3/Tandem:	21	No
231C Timber:	29	No
231D HS-Modified:	26	No
231E Type 3S2:	34	No
231F Piggyback:	40	No

261 H Inventory Rating:	18
262 H Operating Rating:	30
67 Structural Evaluation:	5
58 Deck Condition:	7 - Good Condition
59 Superstructure Condition:	7 - Good Condition
* 227 Collision Damage:	
60A Substructure Condition:	5 - Fair Condition
60B Scour Condition:	7 - Good Condition
60C Underwater Condition:	5 - Fair Condition
71 Waterway Adequacy:	7-Better than present minimum criteria.
61 Channel Protection Cond.:	8-Equal to present desirable criteria.
68 Deck Geometry:	4
69 UnderClr. Horz/Vert:	N
72 Approach Alignment:	8-No reduction of vehicle operating speed required.
62 Culvert:	N - Not Applicable
70 Bridge Posting Required:	5. Equal to or above legal loads
41 Struct Open, Posted, CL:	A. Open, no restriction
* 103 Temporary Structure:	No

232 Posted Loads

232A H-Modified:	00
232B Type3/Tandem:	00
232C Timber:	00
232D HS-Modified:	00
232E Type 3s2:	00
232F Piggyback:	00
253 Notification Date:	02/01/1901
258 Federal Notify Date:	02/01/1901

Attachment #8: Meeting Minutes

- Meeting Minutes from Concept Team Meeting held on 5/07/2018

PI No 0013739 Camden County
SR 25 @ Little Waverly Creek & @ Waverly Creek N of Woodbine
Concept Team Meeting Minutes

Project: PI No 0013739 Camden County
SR 25 @ Little Waverly Creek & @ Waverly Creek N of Woodbine

Subject: Concept Team Meeting

Date: May 7, 2018
11:00 A.M.

Location: GDOT District 5 Area 3 Office
128 Public Safety Blvd
Brunswick, GA 31525

Attendees: *See attached sign-in sheet*

Minutes Prepared by Jeff Vickery on May 9, 2018

Introductions and Meeting Purpose
The purpose of this meeting was to conduct the Concept Team Meeting for PI# 0013739 to review the draft limited concept report and discuss proposed alternatives with GDOT staff, utility owners, local agencies, and the design consultant (Barge Design Solutions).

Aghdas Ghazi, GDOT PM, began the meeting and started introductions of all in attendance in-person and by phone. Ms. Ghazi turned the meeting over to Johnny Lee, Barge PM, to go through the draft concept report.

Concept Report Discussion
Mr. Lee proceeded to go through the draft concept report section by section, soliciting any questions or comments from the Concept Team:

- **Project Location Map**
  - Barge will ensure all roads on the Project Location Map adjacent to the project will be labeled.

- **Planning & Background Data**
  - No comments

- **Design and Structural**
  - Barge will remove references to the existing bridges' sufficiency ratings.

- **Interchanges and Intersections**
  - No comments.

- **Utility and Property**
  - Leslie Dubberly requested that Alma Telephone (ATC) be added to the list of utility owners.

- **Context Sensitive Solutions**
  - No comments

- **Environmental and Permits**
  - Josh Earhart presented a general overview and update to the environmental since the draft concept report had been distributed.
    - Environmental impacts are similar to those encountered on PI 0013738.
    - Nine wetlands have been identified. The salt marsh is pretty well defined in this project area.
    - During the survey for protect species, evidence was found of the potential presence of the pitcher plant in the project area, so the project corridor will be surveyed for this species.
    - Archaeology is finishing up survey this week. A property owner mentioned that there may have been an old motel on the property before.
  - Josh Earhart further discussed potential environmental mitigation for the project.
    - For the on-site detour alternative, the anticipated costs for stream mitigation could be approximately $500,000 to $1 million. This does not include the costs for wetland or salt marsh mitigation or protected species mitigation.
    - For impacts to the salt marsh, there are no mitigation credits available for this project, so the Permittee Responsible Mitigation (PRM) process will likely need to be followed.
    - In addition, there may be additional mitigation costs needed for U.S. Fish & Wildlife protected species.

- **Coordination, Activities, Responsibilities, and Costs**
  - No comments.

- **Alternatives Discussion**
  - Johnny Lee begins the discussion of alternatives and asks the Concept Team if an

on-site detour is preferred given the increased environmental impacts and costs.

- Jerome Sheffield states that the same constructability concerns from PI 0013738 don't exist on PI 0013739 in terms of space restrictions.
- Jerome Sheffield states that except for project cost, the on-site detour may make more sense to keep SR 25 open and access for locals, and the off-site detour may increase construction time; however, District 5 Construction agrees that the best solution to minimize environmental impacts and maintain consistency with the locals and PI 0013738 is to do utilize an off-site detour by constructing one bridge at a time to maintain local access.
- Johnny Lee states that the major concern is the environmental process, caused by having an on-site detour, resulting mitigation costs and potential delay of project schedule.
- Johnny Lee states that Barge will email Aghdas Ghazi our rationale for the preferred off-site detour.
- Keisha Jackson states that the Woodbine Postmaster should be included in local coordination efforts.

Recap Action Items

GDOT

- Will provide updated utilities cost to Barge.
- Will provide updated ROW cost to Barge.
- Will provide original early coordination detour map to Barge

Barge

- Prepare revised project concept report according to comments and discussion from the Concept Team Meeting and submit to GDOT.

EPEI

- Complete remaining environmental surveys and salt marsh delineation.

These minutes are based upon the notes and recollection of the author. Any additions or corrections should be brought to Barge Design Solutions' immediate attention.

GEORGIA DEPARTMENT OF TRANSPORTATION
MEETING/CONFERENCE RECORD OF ATTENDEES

PURPOSE: PI#0013739 Concept Team Meeting

LOCATION: Brunswick Area Office at 128 Public Safety Blvd.

DATE: 5/7/2018 **TIME:** 11:00 AM

MODERATOR: Aghdas Ghazi

If you are a GDOT employee, and have a standard email address of the form: *firstname.lastname@dot.state.ga.us* *please omit.*

	NAME	ORGANIZATION	PHONE NO.	E-MAIL ADDRESS
1.	Aghdas Ghazi	OPD	(912) 659-0984	AGhazi@dot.ga.gov
2.	JEFF VICKERY	BARGE DESIGN SOLUTIONS	678-515-9415	JEFF.VICKERY@BARGEDESIGN.COM
3.	Brandon McDaniel	GDOT Dist. Const.	(912)424-9385	bmcdaniel@dot.ga.gov
4.	JOSH EARHART	EPES	770-333-9484	jearhart@edwards-pitman.com
5.	Cindy Matyas	Waterhouse	678.938.3116	Cmatyas@waterhouse.engineering
6.	Joe McGrew	Waterhouse	404 368 4077	Jmcgrew@waterhouse.engineering
7.	Leslie Duldoorly	GDOT Utilities	912-530-4404	lduldoorly@dot.ga.gov
8.	Byron Cowart	GDOT-D5 Planning	(912) 530-4453	bcowart@dot.ga.gov
9.	Zachary Bailey	GDOT-D5 ROW	(912) 531-4452	Zbailey@dot.ga.gov
10.	Stacy Treat	ATC Broadband	912-632-3124	streat@atcnetworks.net
11.	KOREY MURRAY	GDOT AREA CONST.	(912) 402-7344	murraykoe@dot.ga.gov
12.	JEROME SHEFFIELD	GDOT DIST. CONST.	(912) 237-3800	jsheffield@dot.ga.gov
13.	Johnny Lee	Barge Design	678-515-9431	Johnny.lee@bwsc.net
14.	CAROL KALAFUT (PHONE)	GDOT BRIDGE	404-631-1882	CKALAFUT@DOT.GA.GOV
15.	MICHAEL LEWIS (PHONE)	GDOT LOCATION BUREAU	404-699-4449	MLEWIS@DOT.GA.GOV
16.	KEISHA JACKSON (PHONE)	GDOT ENVIRONMENTAL	678-247-2470	KEIJACKSON@DOT.GA.GOV
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